Kynapse Version 5 AI Middleware Released

Kynogon unveiled the latest version of its artificial intelligence (AI) middleware, Kynapse 5. Olivier Pujol, business, development, Kynogon, described for *MT2* the differences between the product's version 4 and this release. "One of the challenges of modern military simulation is to deal with dynamic and destructible environments. In modern warfare, the theater of operation is in urban environments, where impact of destruction needs to be modelled as it impairs the ability of troops to maneuver, and as destruction also affects civilian behaviors, or terrorists' behaviors." While Kynapse 4 introduced the capability to deal with dynamic objects for path finding and path following, Kynapse 5 is a major step forward to deal with state-of-the-art destructibility capabilities of modern simulation environments. Military simulations also require more and more intelligent entities, for instance for "civilian white noise" in urban environment: hundreds or even thousands of cars and human characters, in addition to red or blue forces, he observed. "This means that the pressure for performance is higher that ever on all the contributors of proper realistic behaviours: physics, animation, and AI Kynapse 5 is another step forward in performance, enabling to drive thousands of entities in AI without affecting the performance of the simulation," concluded Pujol.

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OH-58 Kiowa Simulator Milestone

Computer Sciences Corporation and its U.S. Army Flight School XXI (FSXXI) team members announced the addition and integration of the world's first and only OH-58D Kiowa Warrior helicopter operational flight training simulators to its growing suite of high-fidelity training devices in Warrior Hall, located near Fort Rucker, Ala. The FSXXI contract is administered by PEO-STRI. Following the delivery of the two OH-58D simulators by L-3 Link Simulation & Training, Army aviators have already begun training in the new devices. "These high-fidelity, full-motion simulators are a first for the Army," Scott Brookins, project director, FSXXI, told *MT2*. "They will enable soldiers at Fort Rucker to accomplish a significant portion of the Initial Entry Rotary Wing program of instruction in simulation, thereby reducing the demand on scarce training resources on the flight line. More importantly, there are a significant number of aircrew training tasks that can be accomplished much more efficiently and safely in the simulator than in the aircraft. Finally, OH-58D equipped field units that have no simulation capability can come to Fort Rucker for much needed training when they are without an aircraft due to pre- and post-deployment shipping and reset operations," he said.

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Infantry Trainer Update

Christie showcased its dismounted infantry trainer concept at 2007 I/ITSEC. The life-size, immersive "first person shooter" simulator is a joint collaboration between Christie and EON Reality, Inc., InterSense Inc., and VirTra Systems, Inc. The high fidelity trainer and its multi-sensory environment force the trainee to respond to his or her surroundings. To create realistic depth cues and perception, Christie configured a blended array of Christie Mirage HD6 (1920 x 1080) DLP projectors giving a curved 120-degree (horizontal) field-of-view. The training audience is outfitted with sophisticated wireless motion head-tracking provided by InterSense to allow the subject to look around and behind objects, interacting in real-time with 3-D warfare content by EON Reality. VirTra Systems' high-definition life-like human video characters, tetherless recoil systems, and Threat-Fire belt engaging virtual return fire, enhance the training effectiveness and realism of the system. "This presented a concept of a new simulation environment for infantry units and offered a new way of creating immersive environments to enhance the experience of realism in combat situations," Zoran Veselic, vice president, Visual Environments, Christie, told *MT2*. He added that the concept "shows the technology that can actually enhance the experience, adding the 'third dimension' to the traditional, 2-D simulation environment." Asked what sets this concept apart from fielded virtual marksmanship trainers, Veselic responded, "One is the interaction between the trainee and the application. Teaming with companies like EON Reality, InterSense and VirTra Systems, gives an opportunity to look in a holistic way at all elements of the simulation environment."

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